

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/566,866
Source: IFWP
Date Processed by STIC: 2/9/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 02/09/2006

PATENT APPLICATION: US/10/566,866

TIME: 15:31:34

Input Set : A:\ERP02.002APC SEQLIST.TXT

Output Set: N:\CRF4\02012006\J566866.raw

```

4 <110> APPLICANT: Werling, Dirk
6 <120> TITLE OF INVENTION: ANTIGEN DELIVERY SYSTEM
9 <130> FILE REFERENCE: ERP02.002APC
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/566,866
C--> 11 <141> CURRENT FILING DATE: 2006-02-02
11 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/003386
12 <151> PRIOR FILING DATE: 2004-08-05
14 <150> PRIOR APPLICATION NUMBER: GB 0318247.4
15 <151> PRIOR FILING DATE: 2003-08-05
17 <160> NUMBER OF SEQ ID NOS: 15
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 577
23 <212> TYPE: DNA
24 <213> ORGANISM: Bos taurus
26 <220> FEATURE:
27 <221> NAME/KEY: misc_feature
28 <222> LOCATION: 34, 53, 189, 258, 289, 357
29 <223> OTHER INFORMATION: n = A,T,C or G
31 <400> SEQUENCE: 1
W--> 32 ctcttgtcc aagtgtccaa ggtccccagc tccntaagtc aggaacaatc cangcaagac 60
33 gcgatctacc agaacctgac ccagcttaaa gctgcagtgg gtgagctctc agagaaatcc 120
34 aagctgcagg agatctacca ggagctgacc cagctgaagg ctgcagtggg tgagcttcca 180
35 gagaaatcna agcagcagga gatctaccag gagctgaccc ggctgaaggc tgcagtgggt 240
36 gagcttccag agaaatcnaa gctgcaggag atctaccagg agctgaccng gctgaaggct 300
37 gcagtgggtg agcttccaga gaaatctaag atgcaggaga tctaccagga gctgacncgg 360
38 ctgaaggctg cagtgggtga gctcccagag aaatctaagc agcaggagat ctaccaggag 420
39 ctgacccggc tgaaggctgc agtgggtgag ctaccagaga aatctaagca gcaggagatc 480
40 taccaggagc tgacccggct gaaggctgca gtgggtgagc ttccagataa atccaagcag 540
41 caggagatct accaggagct gacccagctg aaggctg 577
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 1212
45 <212> TYPE: DNA
46 <213> ORGANISM: Pan troglodytes
48 <400> SEQUENCE: 2
49 atgagtgact ccaaggaacc aagactgcag cagctgggcc tcctggagga ggaacagctg 60
50 agaggccttg gattccgaca gaatcgaggc tacaagagct tagcagggtg tcttggccat 120
51 ggtcccctgg tgctgcaact cctctccttc acgctcttgg ctgggctcct tgtccaagtg 180
52 tccaagggtcc ccagctccat aagtcaggaa gaatccaggc aagacgtgat ctaccagaac 240
53 ctgacccagc ttaaagctgc agtgggtgag ctctcagaga aatccaagct gcaggagatc 300
54 taccaggagc tgacccagct gaaggctgca gtgggtgagc ttccagagaa atctaagcag 360
55 caggagatct accaggagct gacccggctg aaggctgcag tgggtgagct tccagagaaa 420
56 tctaagatgc aggagatcta ccaggagctg actcggctga aggctgcagt ggggtgagctt 480

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57 ccagagaaat ctaagatgca ggagatctac caggagctga ctcggctgaa ggctgcagtg 540
58 ggtgagcttc cagagaaatc taagcagcag gagatctacc aggagctgac ccggctgaag 600
59 gctgcagtgg gtgagcttcc agagaaatct aagcagcagg agatctacca ggagctgacc 660
60 cggctgaagg ctgcagtggg tgagcttcca gagaaatcta agcagcagga gatctaccag 720
61 gagctgaccc agctgaaggc tgcagtggaa cgctgtgcc gccgctgcc ctgggaatgg 780
62 acattcttcc aaggaaactg ttacttcatg tctaactccc agcggaactg gcacgactcc 840
63 atcactgcct gcaaagaagt gggggccag ctcgtcgtaa tcaaaagtgc tgaggagcag 900
64 aacttcttac agctgcagtc ttccagaagt aaccgcttca cctggatggg actttcagat 960
65 ctaaattgagg aaggcacgtg gcaatgggtg gacggctcac ctctgttgcc cagcttcaac 1020
66 cagtattgga acagaggaga gccaacaac gttggggagg aagactgcgc ggaatttagt 1080
67 ggcaatggct ggaatgacga caaatgtaat cttgccaaat tctggatctg caaaaagtcc 1140
68 gcagcctcct gctccaggga tgaagaacag tttctttctc cagccctgc cccccaaac 1200
69 cccctcctg cg 1212

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71 <210> SEQ ID NO: 3

72 <211> LENGTH: 1215

73 <212> TYPE: DNA

74 <213> ORGANISM: Homo sapiens

76 <400> SEQUENCE: 3

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78 agaggccttg gattccgaca gactcgagga tacaagagct tagcaggggtg tcttgccat 120
79 ggtcccttg tgctgcaact cctctccttc acgctcttg ctgggctcct tgtccaagt 180
80 tccaaggctc ccagctccat aagtcaggaa caatccaggc aagacgcgat ctaccagaac 240
81 ctgaccagc ttaaagctgc agtgggtgag ctctcagaga aatccaagct gcaggagatc 300
82 taccaggagc tgaccagct gaaggctgca gtgggtgagc ttccagagaa atctaagctg 360
83 caggagatct accaggagct gaccggctg aaggctgcag tgggtgagct tccagagaaa 420
84 tctaagctgc aggagatcta ccaggagctg acctggctga aggctgcagt ggggtgagctt 480
85 ccagagaaat ctaagatgca ggagatctac caggagctga ctcggctgaa ggctgcagtg 540
86 ggtgagcttc cagagaaatc taagcagcag gagatctacc aggagctgac ccggctgaag 600
87 gctgcagtgg gtgagcttcc agagaaatct aagcagcagg agatctacca ggagctgacc 660
88 cggctgaagg ctgcagtggg tgagcttcca gagaaatcta agcagcagga gatctaccag 720
89 gagctgaccc agctgaaggc tgcagtggaa cgctgtgcc accctgtcc ctgggaatgg 780
90 acattcttcc aaggaaactg ttacttcatg tctaactccc agcggaactg gcacgactcc 840
91 atcaccgcct gcaaagaagt gggggccag ctcgtcgtaa tcaaaagtgc tgaggagcag 900
92 aacttcttac agctgcagtc ttccagaagt aaccgcttca cctggatggg actttcagat 960
93 ctaaattcagg aaggcacgtg gcaatgggtg gacggctcac ctctgttgcc cagcttcaag 1020
94 cagtattgga acagaggaga gccaacaac gttggggagg aagactgcgc ggaatttagt 1080
95 ggcaatggct ggaacgacga caaatgtaat cttgccaaat tctggatctg caaaaagtcc 1140
96 gcagcctcct gctccaggga tgaagaacag tttctttctc cagccctgc cccccaaac 1200
97 cccctcctg cgtag 1215

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99 <210> SEQ ID NO: 4

100 <211> LENGTH: 1215

101 <212> TYPE: DNA

102 <213> ORGANISM: Macaca mulatta

104 <400> SEQUENCE: 4

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105 atgagtgact ccaagaacc aagactgcag cagctggacc tcctggagga ggaacagctg 60
106 ggaggcgttg gattccgaca gactcgaggc tacaagagct tagcaggggtg tcttgccat 120
107 gggcccttg tgctgcaact cctctccttc acgctcttg ctgggctcct tgtccaagt 180
108 tccaaagtcc ctagctccct aagtcaggga caatccaaac aagatgcgat ctaccagaat 240
109 ctgaccagc ttaaagttgc agtcagttag ctctcagaga aatccaagca gcaggagatc 300

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110 taccaggagc tgacccggct gaaggctgca gtggatgagc ttcctgagaa atccaagcag 360
111 caggagatct acgaggagct gacccggctc aaggctgcag tgggtgagct tccagagaaa 420
112 tccaagctgc aggagatcta ccaggagctg acctggctga aggctgcagt gggtgagctt 480
113 ccagagaaaat ctaagatgca ggagatctac caggagctat cccggctgaa ggctgcagtg 540
114 ggtgatctcc cagagaaatc caagcagcag gagatctacc aggagctgac ccggctgaag 600
115 gctgcagtgg gtgatctccc agagaaatcc aagcagcagg agatctacca aaagctgacc 660
116 cagctgaagg ctgcagtcga tgggttgcca gacaggctca agcaacagga gatctaccag 720
117 gagctgatcc agctgaaggc tgcagtggaa cgctgtgcc acccctgtcc ctgggagtg 780
118 acattcttcc aaggaaactg ttatttcatg tctaactccc agcggaaactg gcacgactcc 840
119 atcaccgcct gccaggaggt gggggcccag ctctgtgtaa tcaaaagtgc tgaggagcag 900
120 aacttcctgc agctgcagtc ttccagaagt aaccgcttca cctggatggg actttcagac 960
121 ctaaatcacg aaggcacatg gcaatgggtg gatggctcac ctctgttgcc cagcttcaag 1020
122 cagtattgga acaaaggaga gcccacaat attggggagg aagactgtgc ggaatttagt 1080
123 ggcaatggct ggaacgatga caaatgcaat cttgccaaat tctggatctg caaaaagtca 1140
124 gcggcctcct gctccgggga tgaagaacgg ttgctctccc cagcccctac cactccaaac 1200
125 cccctcctg cgtag 1215
127 <210> SEQ ID NO: 5
128 <211> LENGTH: 1450
129 <212> TYPE: DNA
130 <213> ORGANISM: Mus musculus
132 <400> SEQUENCE: 5
133 gggcactgag aagtggctgt gaaacatgag tgattctaag gaaatgggga agaggcagct 60
134 tcgccctctg gatgaggaac tgctgacatc cagccacacc aggcactcca tcaaggctt 120
135 tggcttccaa acaaatctctg gattcagtag cttcacaggg tgctgtgctc acagtcaagt 180
136 ccccttgcca ctgcaggtgc tcttcctagc tgtttgttct gtgctgctgg ttgtcatcct 240
137 tgtcaaagtc taaaaatac ccagttctca ggaagaaaac aatcagatga atgtctacca 300
138 agaactgacc cagttgaagg ctggcgtaga tcgactgtgc cgctcctgcc cctgggactg 360
139 gacgcacttc caaggaagct gttacttctt ctctgtggcc cagaagtcct ggaatgattc 420
140 tgccactgcc tgccacaatg tgggggctca acttggtggtc atcaagagtg atgaagagca 480
141 gaactttcta caacaactt ctaagaagag aggctacact tggatggggc tcattgacat 540
142 gagcaaggag tctacatggg actgggtaga tggttcacct ctgactctca gtttcatgaa 600
143 gtattggagt aaaggagaa ctaacaacct gggagaggaa gactgtgcag agttcagaga 660
144 tgacggctgg aatgacacca aatgtactaa caagaaattc tggatctgca aaaagctttc 720
145 aacttcctgc ctagcaagt gatggccaac tccctccacc atctccacag tcccaaaacc 780
146 ctgccaatg gcagaacttt acccatagct atgccagttt attctacttg tctgtgacca 840
147 ttgataacct tgacaagatc tgtaagactt tattctggca ggtagcttgt ctctgcatt 900
148 gctcctaggt ccagtttgct tcctggacca ttaatgtata gtctcctgat gtctgcagg 960
149 tctctttggg ttagtgggtg tggctctggg ccacctttga catttaatga agtaaacaga 1020
150 catgaggtgt ccttaaatgg gttcctttca tctcctctgt cttcctttct gagtagagac 1080
151 cacatattgc catgtgcaat tgatcctgag tactcacacc tactaaattt taattcatct 1140
152 accctgcaca cttttttatg ggacccttct ttgatttcag gagctcacc tatagactaa 1200
153 aagcacaaga gacccaattc cttaactatt agtcatgac agaaattatt gtgttaattc 1260
154 tctgactcca tctctacccc tgggtggaca tggtgagcct caatgttata gacctccaa 1320
155 attttttgga ggatttataa tttttattga acttactcat taacaattgt atacatatgt 1380
156 atgtataaat ataagtataa ataaccattt tgatttttgc catcctccaa aaaaaaaaaa 1440
157 aaaaaaaaaa 1450
159 <210> SEQ ID NO: 6
160 <211> LENGTH: 192
161 <212> TYPE: PRT

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Input Set : A:\ERP02.002APC SEQLIST.TXT

Output Set: N:\CRF4\02012006\J566866.raw

```

162 <213> ORGANISM: Bos taurus
164 <220> FEATURE:
165 <221> NAME/KEY: VARIANT
166 <222> LOCATION: 12, 18, 63, 86, 97, 119, 128, 151, 166, 176, 177, 178
167 <223> OTHER INFORMATION: Xaa = unallocated amino acid
169 <400> SEQUENCE: 6
W--> 170 Leu Leu Val Gln Val Ser Lys Val Pro Ser Ser Xaa Ser Gln Glu Gln
171 1 5 10 15
172 Ser Xaa Gln Asp Ala Ile Tyr Gln Asn Leu Thr Gln Leu Lys Ala Ala
173 20 25 30
174 Val Gly Glu Leu Ser Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu
175 35 40 45
176 Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Xaa Lys
177 50 55 60
178 Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly
179 65 70 75 80
180 Glu Leu Pro Glu Lys Xaa Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr
181 85 90 95
182 Xaa Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Met Gln
183 100 105 110
184 Glu Ile Tyr Gln Glu Leu Xaa Arg Leu Lys Ala Ala Val Gly Glu Xaa
185 115 120 125
186 Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu
187 130 135 140
188 Lys Ala Ala Val Gly Glu Xaa Pro Glu Lys Ser Lys Gln Gln Glu Ile
189 145 150 155 160
190 Tyr Gln Glu Leu Thr Xaa Leu Lys Ala Ala Val Gly Glu Leu Pro Xaa
191 165 170 175
192 Xaa Xaa Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala
193 180 185 190
196 <210> SEQ ID NO: 7
197 <211> LENGTH: 404
198 <212> TYPE: PRT
199 <213> ORGANISM: Pan troglodytes
201 <400> SEQUENCE: 7
202 Met Ser Asp Ser Lys Glu Pro Arg Leu Gln Gln Leu Gly Leu Leu Glu
203 1 5 10 15
204 Glu Glu Gln Leu Arg Gly Leu Gly Phe Arg Gln Asn Arg Gly Tyr Lys
205 20 25 30
206 Ser Leu Ala Gly Cys Leu Gly His Gly Pro Leu Val Leu Gln Leu Leu
207 35 40 45
208 Ser Phe Thr Leu Leu Ala Gly Leu Leu Val Gln Val Ser Lys Val Pro
209 50 55 60
210 Ser Ser Ile Ser Gln Glu Glu Ser Arg Gln Asp Val Ile Tyr Gln Asn
211 65 70 75 80
212 Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Ser Glu Lys Ser Lys
213 85 90 95
214 Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala Val Gly
215 100 105 110

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Output Set: N:\CRF4\02012006\J566866.raw

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216 Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr
217      115      120      125
218 Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Met Gln
219      130      135      140
220 Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu
221 145      150      155      160
222 Pro Glu Lys Ser Lys Met Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu
223      165      170      175
224 Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile
225      180      185      190
226 Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu
227      195      200      205
228 Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala
229      210      215      220
230 Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln
231 225      230      235      240
232 Glu Leu Thr Gln Leu Lys Ala Ala Val Glu Arg Leu Cys Arg Arg Cys
233      245      250      255
234 Pro Trp Glu Trp Thr Phe Phe Gln Gly Asn Cys Tyr Phe Met Ser Asn
235      260      265      270
236 Ser Gln Arg Asn Trp His Asp Ser Ile Thr Ala Cys Lys Glu Val Gly
237      275      280      285
238 Ala Gln Leu Val Val Ile Lys Ser Ala Glu Glu Gln Asn Phe Leu Gln
239      290      295      300
240 Leu Gln Ser Ser Arg Ser Asn Arg Phe Thr Trp Met Gly Leu Ser Asp
241 305      310      315      320
242 Leu Asn Glu Glu Gly Thr Trp Gln Trp Val Asp Gly Ser Pro Leu Leu
243      325      330      335
244 Pro Ser Phe Asn Gln Tyr Trp Asn Arg Gly Glu Pro Asn Asn Val Gly
245      340      345      350
246 Glu Glu Asp Cys Ala Glu Phe Ser Gly Asn Gly Trp Asn Asp Asp Lys
247      355      360      365
248 Cys Asn Leu Ala Lys Phe Trp Ile Cys Lys Lys Ser Ala Ala Ser Cys
249      370      375      380
250 Ser Arg Asp Glu Glu Gln Phe Leu Ser Pro Ala Pro Ala Thr Pro Asn
251 385      390      395      400
252 Pro Pro Pro Ala
256 <210> SEQ ID NO: 8
257 <211> LENGTH: 404
258 <212> TYPE: PRT
259 <213> ORGANISM: Homo sapiens
261 <400> SEQUENCE: 8
262 Met Ser Asp Ser Lys Glu Pro Arg Leu Gln Gln Leu Gly Leu Leu Glu
263 1      5      10      15
264 Glu Glu Gln Leu Arg Gly Leu Gly Phe Arg Gln Thr Arg Gly Tyr Lys
265      20      25      30
266 Ser Leu Ala Gly Cys Leu Gly His Gly Pro Leu Val Leu Gln Leu Leu
267      35      40      45
268 Ser Phe Thr Leu Leu Ala Gly Leu Leu Val Gln Val Ser Lys Val Pro

```

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 34,53,189,258,289,357

Seq#:6; Xaa Pos. 12,18,63,85,97,119,128,151,166,176,177,178

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/566,866

DATE: 02/09/2006

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Input Set : A:\ERP02.002APC SEQLIST.TXT

Output Set: N:\CRF4\02012006\J566866.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0

M:341 Repeated in SeqNo=1

L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

M:341 Repeated in SeqNo=6

STATISTICS SUMMARY

PATENT APPLICATION: US/10/566,866

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Input Set : A:\ERP02.002APC SEQLIST.TXT

Output Set: N:\CRF4\02012006\J566866.raw

Application Serial Number: US/10/566,866

Alpha or Numeric or Xml: Numeric

Application Class:

Application File Date: 02-02-2006

Art Unit: IFWP

Software Application: FastSEQ

Total Number of Sequences: 15

Total Nucleotides: 6444

Total Amino Acids: 2551

Number of Errors: 0

Number of Warnings: 13

Number of Corrections: 2

MESSAGE SUMMARY

270 C: 1 (Current Application Number differs)

271 C: 1 (Current Filing Date differs)

341 W: 13 ((46) "n" or "Xaa" used)